

marginem externum, alio prope marginem internum lunulaque apicali, pallide flavis vel albidis; pygidii maculis 3 vel 4 corporisque subtus lateribus fasciis transversis ornatis; tibia antica dentibus duobus acutis tertioque minuto remoto armata.

Long. 12.5-15 mm.; lat. max. 6.5-7.5 mm.

In the above diagnosis I have described the male only, because, although I have little doubt that I have rightly associated the very different forms I regard as the male and female, the evidence is not yet conclusive.

The male is like *C. forbesi*, Jans., but the sternal process is shorter, the sutural angles of the elytra are not sharp, and the pale markings are different. Three male specimens found by Mr. Muir are practically identical in their markings, which consist of an interrupted lateral margin to the pronotum, a spot upon the basal lobe, and two minute discoidal spots, and upon the elytra a triangular mark near the middle of each, a comma-like spot near the suture behind, a large and a small spot between the two last but near the outer margin, and an apical lunule.

The two female specimens are superficially entirely different. The pronotum is shining and the pale markings are absent from the upper and lower surface alike, except that in one specimen there are two minute spots upon each elytron. The front tibiae are short and broad and armed with three blunt equidistant teeth, and the hind tarsi are shorter than those of the male.

I believe no well-marked sexual dimorphism has hitherto been recorded in the genus *Clinteria*, and the remarkable parallelism between the present case and that of *Glycyphana disparilis*, in which the sexes differ in exactly the same way, is very suggestive. It is natural to suppose that some kind of local influence is responsible for the occurrence of the same phenomenon (not of a usual kind) in two different genera inhabiting the same place.

LIX.—*Two new Australian Diptera.*

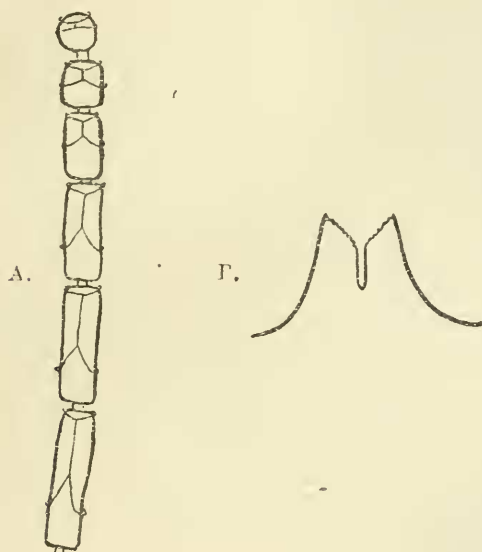
By F. W. EDWARDS, B.A., F.E.S.

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Asphondylia hilli, sp. n.

Adult ♀.—*Eyes* very large, contiguous above for a long distance, leaving only a triangular vertex and a very small

space above the antennæ. Vertex blackish, clothed with rather long and dense black hair. *Palpi* two-jointed (apart from the palpiger), the joints about equal in length, five or six times as long as broad. *Antennæ* dark brown, two-thirds as long as the whole body, clothed with short pale hair. First scapal joint about twice as long as broad, second globular; first flagellar joint cylindrical, six times as long as broad; second to eighth cylindrical, equally long, four times as long as broad; ninth three times, tenth nearly twice, and



A. *A. hilli*. Apex of antenna, to show circumfili.
 B. *A. hilli*. Cervical armature of pupa.

eleventh scarcely more than as long as broad, all cylindrical; twelfth globular, rather less in diameter than the eleventh. All the flagellar joints have an "arcuated thread" round the tip, connected with a second at about one-third the distance from the base. *Thorax* dark greyish brown, dull, with two lines of long yellowish hairs, mixed with some dark ones; patches of dark hair on the humeri. *Abdomen* blackish, rather densely clothed with short greyish pubescence, only about twice as long as broad. The strong needle-like ovi-

positor is not exerted in any of the specimens, and cannot be seen when they are in the dry state; in the mounted specimen, however, it is conspicuous and is about half as long as the entire abdomen. *Legs* stout, clothed for the most part with dark brown scales; on the apical half of the hind tibiæ and the whole of the second hind tarsal joint, however, these scales are light greyish. The empodia are slightly longer than the stout black claws. *Wings* appearing blackish owing to their dense hairy covering, the tips of the veins somewhat darker than the remainder of the wing. *Halteres* blackish, base of stalk yellowish.

Length of body 3 mm.; antenna 2.2 mm.; wing 2.8 mm.

Pupa.—Rather dark brownish in colour. Cervical armature as in the diagram, the anterior edges finely serrate. Four facial teeth; one large one in front and a group of three rather smaller ones behind, two of which are some distance in front of the third. The anterior half of each abdominal segment bears numerous irregularly arranged backwardly directed spines, while situated at about two-thirds of the distance across each segment is a regular transverse row of about 20 spines.

Gall.—Glandular, on the surface of the stem of an undetermined plant; very much resembling that figured by Kieffer for *Daphnephila glandifex* (Gen. Ins. Cecid. pl. ii. figs. 2 & 3), except that the individual galls are quite separate at the base; in size the galls are 4–6 mm. long by 2–3 mm. broad, and on the piece of stem sent, which is only 3 in. \times $\frac{1}{3}$ in., there are about eighty galls. Only a single larva occupies each gall; pupation occurs within the gall, and the pupa emerges by boring a more or less circular hole at the apex.

N. AUSTRALIA: Darwin, 11. xi. 1915 (*G. F. Hill*).

Palpomyia flagellata, sp. n.

Head shining black, front fairly broad, the eyes separated by about the width of the second antennal joint. Palpi and proboscis dark brown, the latter a little shorter than the vertical diameter of the head. Antennæ as long as the whole body; first scapal joint small, second larger, nearly globular; flagellar joints all cylindrical, the first about ten times as long as broad, the next nine all about equal in length, five times as long as broad, last four more elongate and more densely haired than the first ten, which have each a few stiff hairs near the base and apex. The scape of the antennæ is

blackish, the flagellum has the few basal joints yellowish brown, the remainder dark brown. *Thorax* entirely shining black, except for a narrow grey-pruinose band across the lower edge of the pleuræ; scattered black hairs but no short pubescence on the mesonotum, which has a well-marked tubercle in the middle line in front. *Abdomen* nearly cylindrical, entirely shining black. *Legs*: front coxæ and all the trochanters reddish, middle and hind coxæ shining black. Femora yellow with black tips; front and middle pairs entirely unarmed, hind pair with two bristly spines on the underside near the tip. Front tibiæ slightly enlarged before the middle, the basal half and the tip black, the remainder yellow. Middle and hind tibiæ with the basal fourth and the tip black, remainder yellow. All the tarsi with the first joint yellow; second, third, and fourth brownish; fifth whitish, claws black. First tarsal joint of front legs a little less, of middle and hind legs rather more, than half as long as the tibia; second joint about half as long as the first, third about half as long as the second; the front legs being shorter than the others, the third tarsal joint is almost globular. Fourth joint on all legs short, cordiform. Fifth joint about as long as the third, longer on the front legs, without spines beneath. Claws nearly as long as the fifth tarsal joint, simple; the front and middle pairs equal, the hind pair very unequal. *Wings* slightly greyish, unmarked. Costa to about nine-tenths of wing-length; second marginal cell more than three times as long as first; cubitus forking below base of lower branch of media. (Halteres missing.)

Length of body, without antennæ, 3 mm.; wing 2.5 mm.

N. AUSTRALIA: Stapleton, 16. iii. 1915; two females (one damaged) taken in jungle amongst small herbage (*G. F. Hill*).

This species is the first to be described from Australia of this group of Ceratopogoninæ; it is chiefly interesting on account of its elongate antennæ, with cylindrical flagellar joints; the presence of spinules on the hind femora only is also a very unusual character, and, so far as I am aware, is found in only one other species—*P. curriei*, Coq., from North America,—which, except in antennal characters, must bear a close resemblance to *P. flagellata*. The bristles on the hind femora of the new species are hardly stout enough to be called spines, and doubt might arise as to whether the species should be placed in *Falpomysia* or *Johannsenomyia*, but for the presence of a well-marked mesonotal tubercle. This tubercle has apparently been overlooked by previous workers

on this group, but I believe it forms one of the best generic characters of *Palpomyia*. It occurs in all the species of the genus which I have examined (including those of *Heteromyia*, which, in my opinion, is not properly separable from *Palpomyia*), but not in the allied genera *Johannsenomyia* and *Hartomyia*.

BIBLIOGRAPHICAL NOTICE.

The Evolution of Aquatic Reptiles.

MANY attempts during recent years have been made to set before the layman the evidences of Evolution in language devoid of technical terms. Some of these efforts have at the same time resulted in volumes which have proved most acceptable to the trained zoologist. Prof. Williston's book on 'Water Reptiles Past and Present' (The University of Chicago Press and the Cambridge University Press, London) is one of these.

The author writes with a very intimate knowledge of his subject, gleaned not merely from specimens in museums, but also from work in the field. Hence he writes with an almost deadly accuracy—so that, apart from eccentricities of spelling and grammar, which grate on English ears, the critic finds little to cavil at. But here and there we seem to catch him tripping. Thus, in describing the method by which the crocodile drowns its prey, we are told that, by reason of the extremely backward position of the posterior nares, the animal is enabled to "breathe with the mouth," while the extremity of the snout, carrying the external nares, is thrust above the water. Perhaps he merely meant to say that, by reason of the backward migration of the nares, the animal is able to breathe even while the mouth is filled with water. Again, it is scarcely accurate to describe the tortoises as animals which have developed "the strange habit of concealing themselves inside of their ribs."

The Ichthyosaurs naturally are described at length in this volume, but, curiously, no mention is made, in describing the paddles, of the posterior fin-like membrane, with its supporting rays, recalling the fin-rays of fishes.

These, however, are but small blemishes in a book brimful of interest and profusely illustrated.